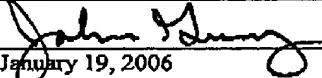


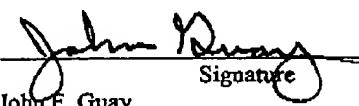
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JAN 19 2006

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| TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i> | | Application Number | 09/651,889 |
| | | Filing Date | August 30, 2000 |
| | | First Named Inventor | Ritsuko Kawasaki et al. |
| | | Group Art Unit | 2891 |
| | | Examiner Name | Dana Farahani |
| Total Number of Pages in This Submission | 6 | Attorney Docket Number | 740756-2205 |

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| ENCLOSURES (check all that apply) | | | |
| <input type="checkbox"/> Fee Transmittal Form (in duplicate) <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request (in duplicate) <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> PTO-Form 1449 <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Assignment Papers <i>(for an Application)</i> <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Declaration and Power of Attorney <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ | <input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brd. Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Application Data Sheet <input type="checkbox"/> Request for Corrected Filing Receipt with Enclosures <input type="checkbox"/> A self-addressed prepaid postcard for acknowledging receipt <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): 1. Figure 3 of the Kim patent (US 5,877,512), including annotations by Applicants (one sheet) | |
| | | Remarks | |
| | | <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees required or credit any overpayments to Deposit Account No. 19-2380 for the above identified docket number. | |

| | |
|---|---|
| SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT | |
| Firm or Individual name | John F. Guay (Reg. No. 47,248) Nixon Peabody LLP 401 9 th Street, N.W. Suite 900 Washington, D.C. 20004-2128 |
| Signature |  |
| Date | January 19, 2006 |

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| <input checked="" type="checkbox"/> transmitted by facsimile on the date shown below to the United States Patent and Trademark Office at (571) 273-8300. | |
| January 19, 2006 |  John F. Guay |
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JAN 19 2006 Docket No. 740756-2205

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:) Confirmation No.: 2171
Ritsuko KAWASAKI et al.)
Application No. 09/651,889) Group Art Unit: 2891
Filed: August 30, 2000) Examiner: Dana Farahani
For: SEMICONDUCTOR DEVICE,)
MANUFACTURING METHOD) Date: January 19, 2006
THEREOF AND ELECTRONIC)
DEVICE)

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THIRD REQUEST FOR RECONSIDERATION

MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action mailed on October 19, 2005, Applicants respectfully request reconsideration and withdrawal of the rejections of the claims.

The most recent Office Action includes a rejection of claims 1, 11-16, 18 and 21-24, under 35 U.S.C. § 102(b) as allegedly being anticipated by Kim (U.S. Patent No. 5,877,512). This rejection is traversed, as the Kim patent fails to describe the claimed combinations of features including "a portion of the channel forming region is convexed or concaved in a channel width direction, said channel width direction being parallel to a plane of the substrate," as recited in independent claim 1, "a portion of said channel forming region is convexed in a direction perpendicular to a channel length direction and parallel to a plane of the substrate," as recited in independent claim 11, "a portion of said channel forming region is concaved in a direction perpendicular to a channel length direction and parallel to a plane of the substrate," as recited in independent claim 12, "a portion of said channel forming region is convexed in a channel width direction, said channel width direction being parallel to a plane of the substrate," as recited in independent claim 13, "a portion of the channel forming region is concaved in a channel width direction, said channel width direction being parallel to a plane of the substrate," as recited in independent claim 14, "a portion of the

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PAGE 2/6 * RCVD AT 1/19/2006 8:36:28 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/24 * DNIS:2738300 * CSID:866 741 0075 * DURATION (mm:ss):01:54

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channel forming region is convexed in a direction perpendicular to a carrier flow direction and parallel to a plane of the substrate," as recited in independent claim 15, and "a portion of the channel forming region is concaved in a direction perpendicular to a carrier flow direction and parallel to a plane of the substrate," as recited in independent claim 16.

In connection with these claimed features, the Examiner contends that the Kim patent discloses, in Figure 3, a TFT having a channel region 27, that a portion of the channel region is concaved shaped in a channel width direction, and that a portion of the channel region is allegedly convexed shaped when Figure 3 is viewed after rotating the page 180 degrees (see, page 2, section 2). It is respectfully submitted, however, that Figure 3 of the Kim patent does not clearly show where a channel forming region exists. As has long been accepted in the art, a channel forming region is a semiconductor region generally formed beneath a gate electrode and between a source region and a drain region. Referring to the attached Figure 3 of Kim, which includes annotations added by Applicants for ease of explanation, the source and drain region appear to be formed below the source electrode 25 and drain electrode 23, and thus the channel forming region appears to be formed between such source and drain regions (see the added arrows representing a carrier flow direction within a channel formed between source and drain regions). In any event, since the Kim patent fails to show or describe particular details concerning the source region and drain region, and Applicants have presented a plausible possibility of what Kim appears to show, it cannot be said with any certainty, within the meaning of Section 102, that the concaved portion of Kim mentioned in the action is a part of any channel forming region.

Additionally, claims 1, 13 and 14 recite *inter alia* that a portion of the channel forming region is either convexed or concaved *in a channel width direction*. As the Examiner can readily appreciate, a "channel width direction" is a direction perpendicular to a direction in which carrier flows from the source region to the drain region. However, with reference to Figure 3 of Kim, the channel width direction appears *perpendicular to the concaved direction* (see the attached Figure 3). Thus, the relationship between the convexed direction and the channel width direction of Kim appears entirely different from that of the claimed invention.

Analogous arguments can be made for the remaining independent claims. For instance, claims 11 and 12 recite *inter alia* that a portion of the channel region is convexed or

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concaved, respectively, in a direction perpendicular to a channel length direction. By contrast, Figure 3 of the Kim patent appears to show a channel length direction *parallel* with the concaved direction. Independent claims 15 and 16 recite *inter alia* that a portion of the channel forming region is convexed or concaved, respectively, in a direction perpendicular to a carrier flow direction. To the contrary, however, a direction of carrier flow in Kim appears to be *parallel* with a concaved direction.

Hence, for all these reasons, the Kim patent fails to anticipate all the features recited in each of independent claims 1 and 11-16, and thus also claims 18 and 21-24, which depend from one of these independent claims.

The action also includes a rejection of claims 2, 3, 19 and 20 under 35 U.S.C. §103 as allegedly being obvious over the Kim patent in view of Japanese patent publication no. [4]04152676A (hereinafter, "the '676 document"), and a rejection of claims 10 and 17 under 35 U.S.C. §103 as allegedly being obvious over Kim in view of Japanese patent publication no. 2001028338 (hereinafter, "the '338 document"). These rejections are respectfully traversed.

With respect to independent claims 2 and 3, it is respectfully submitted that the Kim patent fails teach or suggest each and every feature of the recited combinations of features, whether considered alone or in any combination with the '676 and '338 documents. For instance, as pointed out above, Kim fails to teach that a portion of the channel forming region is either convexed or concaved in a *channel width direction* as recited in the context of independent claims 2 and 3. Because the '676 and '338 documents also fail to disclose these claimed features, no combination thereof with the Kim patent would have taught or suggested each and every claimed feature. Hence, the Office has failed to establish a *prima facie* case of obviousness, even when considering the combined teachings of Kim and the '676 and '338 documents.

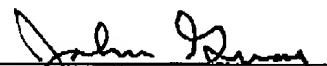
Dependent claims 10, 17, 19 and 20 are allowable at least for the same reasons discussed above with regard to their respective independent claims, and because the additional features recited in these claims define further points of distinction not taught or suggested by the Kim patent, whether considered alone or in any combination with the '676 and '338 documents.

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Based on the foregoing, all pending rejections under Section 102 and 103 are believed improper. As such, the rejections should be withdrawn and the application passed to issue without further delay. Prompt notification of the same is earnestly sought.

Respectfully submitted,


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